

District 08 Mobility Performance Report

2016 Second Quarter

DEPARTMENT OF TRANSPORTATION

July 19, 2016
: Ramin Ghodsi

District 08 Mobility Performance Report

2016 Second Quarter

EXECUTIVE SUMMARY

Overview

Caltrans District 8 contains two counties located in southern California: San Bernardino and Riverside Counties. Both counties are part of the Inland Empire, with Riverside County has a population of almost 2.3 million residents and San Bernardino County with 2.1 million residents. Although these are urban counties, they do contain a large amount of sparsely populated National Forest and National Recreation Area land.

The Mobility Performance quarterly analysis compares information with over a year ago and over last quarter in the following performance measures:

- Vehicle Miles of Travel (VMT))
- Vehicle Hours of Delay (VHD), Bottleneck Locations
- Lost Lane Miles (equivalent lost productivity)
- Detector Health

This information is based on data collected every day of the quarter, twenty-four hours a day, by automated vehicle detector stations deployed on urban-area freeways where congestion is regularly experienced. The MPR presents congestion information at two speed thresholds: delay from vehicles traveling below 35 miles per hour (mph), and delay from vehicles traveling below 60 mph. The delay at the 35 mph threshold represents severe congestion while delay at 60 mph represents all congestion, both light and heavy. These thresholds are set by Caltrans and are based upon engineering experience and District input.

FINDINGS

In the second quarter of 2016, total delay equaled 1.6 million Vehicle Hours of Delay (VHD) at the 35 mph speed threshold, and 5.4 million VHD at the 60 mph threshold. The average weekday delay experienced in this quarter was approximately 21 thousand VHD at 35 mph, and 70 thousand VHD at 60 mph. The Vehicle Miles of Travel (VMT) equaled 6.9 billion miles for this quarter. The total delay at 35 mph is 871,820 for Riverside County and 717,261 for San Bernardino County. The total delay at 60 mph is 2,792,514 for Riverside County and 2,561,875 for San Bernardino County.

Top Ten Bottleneck AM Period

Rank	County	Freeway	CA Postmile	Approximate Location	Average Extent (miles)	Total Delay (hours)	Total Duration (hours)	Period
1	Riverside	SR71-S	2.5	S/O PRADO DAM RD	3.07	51021.8	210.17	AM
2	Riverside	I215-N	40.929	MARTIN LUTHER KING	2.30	38030.8	197.58	AM
3	Riverside	SR91-W	4.218	MAPLE	2.27	29865.3	183.17	AM
4	Riverside	SR60-W	11.6	W/O Main Street	3.73	27826	103.17	AM
5	Riverside	I215-S	44.908	Center St	3.00	19792.6	80.58	AM
6	Riverside	I15-N	52.27	PHILADELPHIA UC	0.82	18825.5	161.58	AM
7	San Bernardino	I15-S	0.969	JURUPA	1.45	12318.2	76.33	AM
8	San Bernardino	I210-W	5.7	W/B ARCHIBALD ONR	1.41	8409.1	62.33	AM
9	Riverside	I15-N	40.38	MAGNOLIA N/B ON	0.66	5583.7	114.75	AM

Top Ten Bottleneck PM Period

Rank	County	Freeway	CA Postmile	Approximate Location	Average Extent (miles)	Total Delay (hours)	Total Duration (hours)	Period
1	San Bernardino	I15-N	3.2	4TH ST NB ONR	1.52	53305.4	200.25	PM
2	San Bernardino	I15-S	0.969	JURUPA	1.60	43266.2	182.58	PM
3	Riverside	SR91-E	5.89	GRAND	2.12	32361.6	250.58	PM
4	Riverside	I15-N	5.7	RANCHO CALIF. N/O	2.10	32060.3	193.67	PM
5	Riverside	I215-S	40.76	MLK SB ON	1.81	29447.9	226.50	PM
6	Riverside	I215-S	R32.5	OLEANDER AVE	3.80	27866.7	122.00	PM
7	Riverside	SR91-E	R.413	County Line	0.60	25685.5	242.75	PM
8	San Bernardino	I210-E	2	.4 M E/O MOUNTAIN	1.16	25614.8	180.75	PM
9	Riverside	SR91-W	10.724	PIERCE	1.46	25191.8	172.08	PM
10	Riverside	I15-N	52.27	PHILADELPHIA UC	0.84	22942.8	189.33	PM

Quarterly Mobility Statistics

Measure	Graph	Percentage Change									
Vehicle Miles of Travel (VMT)	<p>Miles (Billions)</p> <table><thead><tr><th>Quarter</th><th>VMT (Billions)</th></tr></thead><tbody><tr><td>2015 Q2</td><td>6.9</td></tr><tr><td>2016 Q1</td><td>6.9</td></tr><tr><td>2016 Q2</td><td>6.9</td></tr></tbody></table>	Quarter	VMT (Billions)	2015 Q2	6.9	2016 Q1	6.9	2016 Q2	6.9	Over one year ago	Over last quarter
		Quarter	VMT (Billions)								
2015 Q2	6.9										
2016 Q1	6.9										
2016 Q2	6.9										
		0.1 % ↑	-0.2 % ↓								
Total Vehicle Hours of Delay (VHD) at 35 mph	<p>Hours (Millions)</p> <table><thead><tr><th>Quarter</th><th>VHD (Millions)</th></tr></thead><tbody><tr><td>2015 Q2</td><td>1.9</td></tr><tr><td>2016 Q1</td><td>1.7</td></tr><tr><td>2016 Q2</td><td>1.6</td></tr></tbody></table>	Quarter	VHD (Millions)	2015 Q2	1.9	2016 Q1	1.7	2016 Q2	1.6	Over one year ago	Over last quarter
		Quarter	VHD (Millions)								
2015 Q2	1.9										
2016 Q1	1.7										
2016 Q2	1.6										
		-17.9 % ↓	-7 % ↓								
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 35 mph	<p>Hours (Thousands)</p> <table><thead><tr><th>Quarter</th><th>VHD (Thousands)</th></tr></thead><tbody><tr><td>2015 Q2</td><td>24</td></tr><tr><td>2016 Q1</td><td>23</td></tr><tr><td>2016 Q2</td><td>21</td></tr></tbody></table>	Quarter	VHD (Thousands)	2015 Q2	24	2016 Q1	23	2016 Q2	21	Over one year ago	Over last quarter
		Quarter	VHD (Thousands)								
2015 Q2	24										
2016 Q1	23										
2016 Q2	21										
		-13.1 % ↓	-10.6 % ↓								
Total Vehicle Hours of Delay (VHD) at 60 mph	<p>Hours (Millions)</p> <table><thead><tr><th>Quarter</th><th>VHD (Millions)</th></tr></thead><tbody><tr><td>2015 Q2</td><td>5.6</td></tr><tr><td>2016 Q1</td><td>5.5</td></tr><tr><td>2016 Q2</td><td>5.4</td></tr></tbody></table>	Quarter	VHD (Millions)	2015 Q2	5.6	2016 Q1	5.5	2016 Q2	5.4	Over one year ago	Over last quarter
		Quarter	VHD (Millions)								
2015 Q2	5.6										
2016 Q1	5.5										
2016 Q2	5.4										
		-4.2 % ↓	-2.7 % ↓								
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 60 mph	<p>Hours (Thousands)</p> <table><thead><tr><th>Quarter</th><th>VHD (Thousands)</th></tr></thead><tbody><tr><td>2015 Q2</td><td>71</td></tr><tr><td>2016 Q1</td><td>74</td></tr><tr><td>2016 Q2</td><td>70</td></tr></tbody></table>	Quarter	VHD (Thousands)	2015 Q2	71	2016 Q1	74	2016 Q2	70	Over one year ago	Over last quarter
		Quarter	VHD (Thousands)								
2015 Q2	71										
2016 Q1	74										
2016 Q2	70										
		-1.7 % ↓	-5 % ↓								

Measure	Graph	Percentage Change	
Average Vehicle Hours of Delay by Day of Week at 60 mph	<p>Hours (Thousands)</p> <p>■ 2015 Q2 ■ 2016 Q1 ■ 2016 Q2</p>	Largest Magnitude Decrease over one year ago	Largest Magnitude Decrease over last quarter
		Saturday -24.2%	Friday -11.4%
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
		Wednesday 3.4%	Monday 15.2%
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Weekdays	<p>Hours (Thousands)</p> <p>— Weekday (2015 Q2) — Weekday (2016 Q1) — Weekday (2016 Q2)</p>	Largest Magnitude Weekday Decrease over one year ago	Largest Magnitude Weekday Decrease over last quarter
		6 PM -25.3%	6 PM -30.1%
		Largest Magnitude Weekday Increase over one year ago	Largest Magnitude Weekday Increase over last quarter
		8 AM 15.7%	3 PM 6.3%
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Saturdays	<p>Hours (Thousands)</p> <p>— Saturday (2015 Q2) — Saturday (2016 Q1)</p>	Largest Magnitude Saturday Decrease over one year ago	Largest Magnitude Saturday Decrease over last quarter
		4 PM -46.9%	5 PM -23.6%
		Largest Magnitude Saturday Increase over one year ago	Largest Magnitude Saturday Increase over last quarter
		9 PM 11.3%	2 PM 20.1%
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Sundays/Holidays	<p>Hours (Thousands)</p> <p>— Sunday/Holiday (2015 Q2) — Sunday/Holiday (2016 Q1) — Sunday/Holiday (2016 Q2)</p>	Largest Magnitude Sun/Holiday Decrease over one year ago	Largest Magnitude Sun/Holiday Decrease over last quarter
		1 PM -35%	8 PM -31.5%
		Largest Magnitude Sun/Holiday Increase over one year ago	Largest Magnitude Sun/Holiday Increase over last quarter
		10 AM 29.4%	4 PM 25.8%

Measure	Graph	Percentage Change	
Total Vehicle Hours of Delay (VHD) by County at 35 mph	<p>Hours (Millions)</p> <p>2015 Q2 2016 Q1 2016 Q2</p> <p>Riverside San Bernardino</p>	Largest Magnitude Decrease over one year ago	Largest Magnitude Decrease over last quarter
		San Bernardino -20.5%	San Bernardino -9.7%
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
		-	-
Average Non-Holiday Weekday Equivalent Lost Lane Mile Hours at 35 mph	<p>Miles</p> <p>2015 Q2 2016 Q1 2016 Q2</p> <p>AM Peak (6 AM to 10 AM) Off-Peak Day (10 AM to 3 PM) PM Peak (3 PM to 7 PM) Off-Peak Night (7 PM to 6 AM)</p>	Largest Magnitude Decrease over one year ago	Largest Magnitude Decrease over last quarter
		PM Peak -10.8%	PM Peak -5.8%
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
		-	Off-Peak Day 14.3%
Average Number of Good and Bad Detectors	<p>Number of Detectors</p> <p>Average of Good Average of Bad</p> <p>2015 Q2 2016 Q1 2016 Q2</p>	Change in Good over one year ago	Change in Good over last quarter
		-5%	-7%
		Change in Bad over one year ago	Change in Bad over last quarter
		2%	2%

Congestion by Route											
Route	County	Vehicle Hours of Delay at 35 mph			Difference 2016 Q2-2015 Q2		Difference 2016 Q2-2016 Q1		Rank		
		2015 Q2	2016 Q1	2016 Q2	Absolute	Percentage	Absolute	Percentage	2015 Q2	2016 Q1	2016 Q2
I-15	San Bernardino	457598	292131	265726.7	-191871.3	-42%	(26,404)	-9%	2	2	1
I-15	Riverside	199699.9	211680.1	261803.7	62103.8	31%	50,124	24%	3	4	2
SR-91	Riverside	633486.4	413064.1	261000.9	-372485.5	-59%	(152,063)	-37%	1	1	3
I-10	San Bernardino	175154.1	218529.7	207872.5	32718.4	19%	(10,657)	-5%	4	3	4
I-215	Riverside	126902.9	192728.7	201149.8	74246.9	59%	8,421	4%	6	5	5
I-210	San Bernardino	122493.9	124074.2	110682.5	-11811.4	-10%	(13,392)	-11%	7	6	6
SR-60	Riverside	50045.4	63852.6	80064.5	30019.1	60%	16,212	25%	8	8	7
SR-60	San Bernardino	137331.8	85022.1	51530.2	-85801.6	-62%	(33,492)	-39%	5	7	8
SR-71	Riverside	16289.9	27475.5	51418	35128.1	216%	23,943	87%	9	11	9
I-215	San Bernardino	6070.8	40221.4	43070.4	36999.6	609%	2,849	7%	11	9	10
SR-71	San Bernardino	4126.4	34355	38294.4	34168	828%	3,939	11%	12	10	11
I-10	Riverside	6169.2	6004.9	16383.5	10214.3	166%	10,379	173%	10	12	12
SR-259	San Bernardino	0.1	74.1	84.5	84.4	84400%	10	14%	13	13	13
TOTALS		1,935,349	1,709,213	1,589,682	-346,267	-17.9%	-120,132	-7.6%			